

REMARKS

As a preliminary matter, Applicants appreciate the interview conducted with the Examiner on July 10, 2008. Although no agreement was reached, Applicants have amended the claims as suggested by the Examiner to clarify the types of data scanings during the first-half data scanings and second-half data scanings.

Claims 1 and 8-10 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Makino et al. (U.S. Publication No. 2002/0008683) in view of Yoshihara et al. (U.S. Publication No. 2002/0154078, hereinafter Yoshihara '078). In response, Applicants amended independent claims 1 and 8 to clarify that the first-half data scanings are write scanings, and the second-half data scanings are erase scanings. Applicants also amended independent claims 1 and 8 to clarify that the second-half data scanings are scanned sequentially one by one, and respectfully traverse the rejection based on these amendments.

Makino shows in FIG. 34 that during one frame there are four scanings, which are two data-writing scanings and two data-erasing scanings. Makino teaches that a data-erasing scanning occurs followed by a data-writing scanning during a first sub-frame. Then, a data-erasing scanning occurs followed by a data-writing scanning during a second sub-frame. Thus, Makino teaches alternating the data scanning between erasing and writing. Makino is silent regarding a plurality of similar write first-half data scanings, or a plurality of consecutive similar erase second-half data scanings. Makino is also silent regarding the second-half data scanings being scanned sequentially one by one.

Yoshihara '078 is directed to a driving method of a liquid crystal display device and the device itself. Yoshihara '078 is cited by the Examiner for teaching a plurality of similar first-half data scanings and a plurality of consecutive similar second-half data scanings following the scanning of the first-half data scanings within a predetermined time period. However, as taught in paragraph [0052], during erasure, an application of voltage is performed at least twice to achieve a black display state in all of the pixel electrodes 5. As further shown in FIG. 10 of Yoshihara '078, a batch erasure process occurs. This is different from the present invention, which has second-half data scanings that are scanned sequentially one by one. Accordingly, Applicants respectfully submit that since the erasure process of Yoshihara '078 is different from the erasure process of Makino, there is no motivation to combine the references.

Alternatively, if Makino was combined with Yoshihara '078, then Makino would have a batch erasure process for the erase second-half data scanings. Accordingly, the combination would fail to disclose or suggest erase second-half data scanings that are scanned sequentially one by one, as now recited in amended claims 1 and 8. For these reasons, withdrawal of the §103(a) rejection of claims 1 and 8-10 is respectfully requested.

Claims 3-4 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Makino in view of Yoshihara '078, and further in view of Yoshihara et al. (U.S. Publication No. 2002/0000960, hereinafter Yoshihara '960). Applicants respectfully traverse the rejection for the reasons recited above with respect to the rejection of amended independent claim 1.

The deficiencies of Makino and Yoshihara '078 are noted above. Yoshihara '960 is merely cited for teaching that the voltage applied during the first-half data scanings and second-half data scanings are of equal magnitude and opposite in polarity. However, Yoshihara '960 fails to overcome the deficiencies of Makino and Yoshihara '078, wherein the first-half data scanings are write scanings, the second-half data scanings are erase scanings, and the erase second-half data scanings are scanned sequentially one by one. For this reason, withdrawal of the §103(a) rejection of claims 3-4 is respectfully requested.

Claims 2, 5-7, and 11-14 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Makino in view of Yoshihara '078, and further in view of one of Nitto et al. (U.S. Publication No. 2003/0123258) or Tanaka et al. (U.S. Publication No. 2002/0149576). In response, Applicants traverse the rejection for the reasons recited above with respect to the rejection of independent claims 1 and 8.

The deficiencies of Makino and Yoshihara '078 are noted above. Nitto is merely cited for teaching a brightness distribution of the light sources uneven in a data scanning direction, or that the brightness is lowest in the center and the data scanning direction increases from the center toward upstream and downstream in the data scanning direction. Nitto fails to overcome the deficiencies of Makino and Yoshihara '078 with respect to the similar write first-half data scanings and consecutive similar erase second-half data scanings, wherein the erase second-half data scanings are scanned sequentially one by one.


Tanaka is cited for disclosing a light source that is turned on at substantially an intermediate time point of a first scanning and turned off at substantially an intermediate time point of a second scanning. Tanaka is also cited for disclosing to emit a light of at least three primary colors, and a color display being performed by switching the color of light emitted by the light source in a time-divided manner in synchronism with ON/OFF driving of switching elements. However, Tanaka fails to disclose or suggest the above-described features, and in particular erase second-half data scanings that are scanned sequentially one by one. For these reasons, any combination of Makino and Yoshihara '078 in combination with Nitto or Tanaka fail to disclose or suggest the above-described features, and withdrawal of the §103(a) rejections of claims 2, 5-7, and 11-14 is respectfully requested.

For all of the foregoing reasons, Applicants submit that this Application is in condition for allowance, which is respectfully requested. The Examiner is invited to contact the undersigned attorney if an interview would expedite prosecution.

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